

# The Effect of Breast Cancer Screening Messages on Knowledge, Attitudes, Perceived Risk, and Mammography Screening of African American Women in the Rural South

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**Purpose/Objectives:** To determine the effect of three types of breast cancer screening messages (positive/upbeat, neutral/cognitive, and negative/fear) on knowledge, attitudes, perceived risk for breast cancer, and mammography screening of African American women.

**Design:** Repeated measures intervention.

**Setting:** Three rural counties in the South.

**Sample:** 450 African American women aged 45–65 who had not received a mammogram in the past 12 months.

**Methods:** Following completion of pretest knowledge and attitude surveys, the women participated in a 60-minute breast health intervention session that included watching one of three videos with varied affective tones (positive/upbeat, neutral/cognitive, negative/fear). Data on knowledge, attitudes, perceived risk for breast cancer, and mammography screening were collected before, after, and 12 months following the intervention.

**Main Research Variables:** Knowledge, attitudes, perceived risk for breast cancer, and mammography screening.

**Findings:** No significant difference was found among video groups on mammography screening and knowledge of and attitudes about breast cancer over the three measurement periods.

**Conclusions:** The affective tone of the educational videos did not make a difference in mammogram screening, attitudes, and knowledge of breast cancer screening. More women received a mammogram 12 months postintervention than prior to the intervention; however, the influence of the intervention on this outcome is uncertain.

**Implications for Nursing:** Nurses and health communication experts should design interventions that foster positive attitudes, increase knowledge about breast cancer screening, and stimulate women to participate in breast cancer screening as outlined by the American Cancer Society. These interventions need to be done in the context of the cultural norms and the education levels of the target population.

Although the attributes and delivery of preventive health messages can make a difference in recipients' use of that information, relatively little research has focused on exploring these variables in terms of promoting breast cancer screening rates among African American women, particularly those living in rural locales. The importance of cultural appropriateness of health promotion messages is well documented, but most of the health promotion research conducted to date has targeted knowledge, attitudes, and practices as the defining variables of cultural competence (Barker, 1992; Kreps, 1994). Few investigators have sought to explore the influence

## Key Points . . .

- ▶ Women who never had had a mammogram did receive the screening examination within the 12-month follow-up period.
- ▶ The affective tone of the videos did not have an effect on knowledge, attitudes, and behaviors of participants in this study.
- ▶ Women who did not follow the American Cancer Society's guidelines for breast cancer mammography screening were more likely to have less than a high school education, live in households with an annual income of less than \$15,000, be single, and lack regular health care.

of affect in health recommendations. Therefore, the Breast Health Intervention Evaluation (BRIE) Study sought to determine the effect of three affectively different breast cancer screening messages (positive/upbeat, neutral/cognitive, and negative/fear) on knowledge of breast cancer screening recommendations, attitudes about breast cancer, perceived risk for breast cancer, and mammography screening behaviors of African American women living in three communities in rural Georgia. The lack of research regarding effective breast health screening messages for African American women living in medically underserved areas in the rural South prompted this study.

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